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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,348	09/26/2005	Peter Jonen	HM-616PCT	4587
40570	7590	09/08/2006	EXAMINER	
FRIEDRICH KUEFFNER			LIN, KUANG Y	
317 MADISON AVENUE, SUITE 910			ART UNIT	
NEW YORK, NY 10017			PAPER NUMBER	

1725

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/524,348

Applicant(s)

JONEN ET AL.

Examiner

Kuang Y. Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/11/05</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Applicant is request to provide in the specification headings, such as "BACKGROUND OF THE INVENTION", "SUMMARY OF THE INVENTION", "BRIEF DESCRIPTION OF THE DRAWING", "DETAILED DESCRIPTION OF THE DRAWINGS", etc. to render the specification in a better format.
2. The specification is objected to in that in page 4, line 12, "coil" shall be changed to "pole" and in page 5, lines 11-13, the bracket "[]" shall be deleted to render the meaning definite.
3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are written in a narrative format rather than an objective format and thereby they do not positively and directly include all the structural elements which are referred thereto. Further, in claim 1, line 4, and claim 5, line 3, respectively, there is lack of antecedent basis in the claim for "**the** broad sides" (claim 1) and "**the** filler pieces" (claim 5). In claim 6, line 6, the expression of "especially by welding" is considered to be indefinite since it is not what scope is claimed. In claim 8, it is not clear whether the "antifriction layer is an structural element or not. Further, the expression of "especially an air layer" is considered to be indefinite since it is not what scope is claimed. In claim 9, it is not clear what further structure is claimed.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1 and 2 insofar as definite are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 9-57,401.

JP '401 substantially shows the invention as claimed except that it does not show to provide water tank for cooling the mold and the EM means. However, it is conventional and thus is obvious to provide the continuous casting mold with a water tank for cooling the same such that to speed up the molten metal cooling process.

7. Claims 3 and 5 insofar as definite are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 9-57,401 as applied to claim 1 above, and further in view of US 5,613,548 to Streubel et al.

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It would have been obvious to further provide the mold with filler pieces for varying the magnetic field in view of Streubel et al. who show that feature to be conventional.

8. Claims 4 and 6-9 insofar as definite are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 9-57,401 as applied to claim 1 above, and further in view of JP 59-229,265.

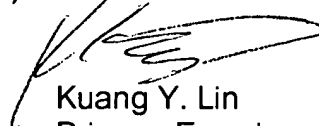
It would have been obvious to provide the actuator means for moving the EM parts 6c and 7A of JP '401 in view of JP '265 to facilitate the moving process. It would have been obvious to provide guide means and antifriction means between two relative moving parts wherever it deems necessary to facilitate the moving process.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuang Y. Lin whose telephone number is 571-272-1179. The examiner can normally be reached on Monday-Friday, 10:00-6:30,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kuang Y. Lin
Primary Examiner
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9-5-2006